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OM protein - protein search, using sw model

8, 2005, 15:23:16; Search time 39 Seconds July Run on:

(without alignments) 143.092 Million cell updates/sec

US-10-617-978-20 343 Title: Perfect score:

1 ADVPGNYPLDSSDNTYLCAP......GYCYAFQCWCEFLKDENVKV 58 Sequence:

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Total number of hits satisfying chosen parameters:

283416 segs, 96216763 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

PIR 79:\* Database

pirl:\* pir2:\* pir3:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Score	\$ Query Match	% Query Match Length	DB	SUMMARIES	Description
1 6	33.1	65	-	NTSR3C	neurotoxin 3 - bar
	32.4	87	7	JN0669	Na+-channel-blocki
_	32.1	v	7	A27406	toxin CssII - Mexi
_		99	7	A55869	crustacean-specifi
σ.	31.8	87	~	JN0670	Na+-channel-blocki
108	31.5	84	н	NTSR2N	Na+-channel-blocki
0.2	31.2	9	~	A31188	neurotoxin 1 - sco
02	31.2	80	~	JN0672	neurotoxin 4 precu
~	29.7	9	~	S23080	toxin 3 - scorpion
02	29.7	œ	~	JN0671	Na+-channel-blocki
근	29.4	ø	н	NTSRIC	neurotoxin I - bar
101	29.4	9	~	S32789	toxin II-14 - scor
100	29.5	9	ч	NTSR2C	neurotoxin 2 - bar
'n.	27.8	ø	н	NTSR1C	neurotoxin 1 - bar
Ŋ	26.8	9	7	B34123	
9	25.9	9	-4	NTSR4E	neurotoxin M14 - 1
8	25.7	80	~	A61616	depressant insect
9	25.1	9	<del>-</del> 4	NTSR4L	neurotoxin IV - Eg
85	24.8	9	-	NTSRSL	neurotoxin V - Egy
5	24.8	80	~	A40472	depressant insect
84	24.5	9	Н	NTSR5M	neurotoxin V - sco
84	24.5	ø	7	A59222	neurotoxin X - sco
ß	24.3	80	٦	NTSR4T	neurotoxin TsIV pr
ლ	24.2	2	7	C23727	neurotoxin V-5 - b
83	24.2	9	7	B23727	neurotoxin V-4 - b
79.5	23.2	9	N	S62863	toxin IV-5 - Tityu
'n	23.2	9	Н	NTSR1B	neurotoxin I - sco
ιĊ	22.9	œ	Н	NTSR3A	neurotoxin III pre
78	22.7	61	7	B59352	depressant insect-

neurotoxin XI - sc	neurotoxin V - bar	depressant insect-	anti-mammals neuro	neurotoxin IV - Sa	neurotoxin alpha-I	drosomycin precurs	alpha insect toxin	anti-epilepsy prot	neurotoxin M10 - 1	depressant insect-	alpha-toxin - Braz	toxin 1 - scorpion	hypothetical prote	excitatory insect	depressant insect-
NTSREB	A23727	D59352	JE0143	JC1321	A35940	A55824	A39306	802174	NTSROE	C59352	\$60352	808267	T25424	A59006	A59352
н	7	~	~	7	7	~	0	~	н	7	~	-	~	7	7
65	63	62	84	64	64	70	82	20	65	61	64	70	548	61	61
2.7	22.6	22.4	22.4	22.0	21.9	21.9	21.9	21.7	21.7	21.6	21.6	20.7	20.6	20.4	20.4
7							ın	2	ហ	4	4	-	2	٥	_
	77.5	77	77	75.5	75	7	7	74.	74.	7	7	7	70.	70	7

# ALIGNMENTS

neurotoxin 3

Cispecies: Centruroides sculpturatus (bark scorpion)
Cispecies: Li-Oct-1982 #sequence revision 15-Oct-1982 #text\_change 23-Aug-1996
Cistace: 15-Oct-1982 #sequence revision 15-Oct-1982 #text\_change 23-Aug-1996
Cistacession: A99058; A94400; A01754
Ribabin, D.R.; Watt, D.D.; Goos, S.M.; Mlejnek, R.V.
Ribabin, D.R.; Watt, D.D.; Goos, S.M.; Mlejnek, R.V.
Arch. Biochem. Biophys. 164, 694-706, 1974
A;Title: Amino acid sequences of neurotoxic protein variants from the venom of Centruro A;Reference number: A90058; MUID:75163395; PMID:4460885

al., Toxicon 20, 1-7, 1982 A; Accession: A90058
A; Molecule type: protein
A; Residues: 1-24, VIC', 28-63, CS' < BAB>
B; Bhown, A.; Mole, J.
Unpublished results, cited by Fontecilla-Camps, J.C., et al., Toxion
A; Reference number: A94470
A; Accession: A; Protein
A; Residues: 1-65 < BHO>
A; Residues: 1-65 < BHO>
A; Residues: 1-67 < BHO>
A; Fontecilla-Camps, J.C.; Almassy, R.J.; Suddath, F.L.; Bugg, C.E.
Toxicon 20, 1-7, 1982
A; Title: The three-dimensional structure of scorpion neurotoxins.

A; Title: The three-dimensional structure of scorpion neurotoxins.

A; Reference number: A4314; MUD: 82200153; PMID: 70800252

A; Contents: annotation; X-ray crystallography, 1.8 angstroms; disulfide bonds

A; Note: X-ray crystallographic studies were based on the revised sequence shown

C; Superfamily: scorpion neurotoxin

C; Keywords: neurotoxin; venom

F;12-65,16-41,25-46,29-48/Disulfide bonds: #status experimental

Gaps ñ Query Match 33.1%; Score 113.5; DB 1; Length 65; Best Local Similarity 46.0%; Pred. No. 1.8e-05; Matches 23; Conservative 4; Mismatches 20; Indels

'n

# 7 YPLDSSDN-TYLCAPLGDNPDCIKIC--QKHGVDYGYCYAFQCWCEFLKD 53 4 YLVKKSDGCKYGCLKLGENEGCDTECKAKNQGGSYGYCYAFACWCEGLPE 53

g ਨੇ

(Centruroides noxius) Na+-channel-blocking toxin (clone cngtII) precursor - scorpion (Centruroides no C; Species: Centruroides noxius C; Dates: 03-Feb-1994 #sequence\_revision 03-Feb-1994 #text\_change 09-Jul-2004 C; Accession: JN0669 R; Becerril, B.; Vazquez, A.; Garcia, C.; Corona, M.; Bolivar, F.; Possani, L.D. Gene 128, 165-171, 1993

A;Title: Cloning and characterization of cDNAB that code for Na+-channel-blocking toxin: A;Reference number: JN0669; MUID:93292983; PMID:8390386
A;Accession: JN0669
A;Accession: JN0669
A;Accession: PROAPE: MRNA
A;Residues: 1-87 < BEC>
A;COSS-references: UNIPROT:P45663; GB:L05060; NID:g304566; PIDN:AAA28285.1; PID:g30456

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C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change 09-Jul-2004
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: mRNA
A; Residues: 1-84 <VAZ>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Accession: S45722
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C;Date: 21-May-1988 #sequence_revision 21-May-1988 #text_change 09-Jul-2004
C;Accession: A27406
R;Martin, M.F.; Garcia, Y.; Perez, L.G.; El Ayeb, M.; Kopeyan, C.; Bechis, G.; Jover, E. J. Biol. Chem. 262, 4452-4459, 1987
J. Biol. Chem. 262, 4452-4459, 1987
A;Title: Purification and chemical and biological characterizations of seven toxins from A;Reference number: A27406; MUID:87165842; PMID:2435711
A;Contents: C. s. suffusus
A;Accession: A27406
A;Aolecule type: protein
A;Residues: 1-66 cMAR>
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Biochemistry 33, 11135-11149, 1994
Biochemistry 33, 11135-11149, 1994
A; Title: Primary and NWR three-dimensional structure determination of a novel crustacean A; Reference number: A55869; MUID:95244424; PMID:7727365
A; Accession: A55869
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-66 cLEB
A; Crose-references: UNPROT:P45667
C; Superfamily: scorpion neurotoxin
C; Superfamily: scorpion neurotoxin
C; Keywords: disulfide bond; toxin
F; 12-65, 16-41, 25-46, 29-48/ Disulfide bonds: #status experimental
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Na+-channel-blocking toxin (clone cngtIII) precursor - scorpion (Centruroides noxius)
C;Species: Centruroides noxius
                       C;Superfamily: scorprom.....
C;Rewords: toxin
F:1-19/Domain: signal sequence #status predicted <SIG>
F:1-19/Domain: signal sequence #status predicted <MAT>
F:20-87/Product: Na+-channel-blocking toxin (clone ongtII) #status predicted <MAT>
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C;Species: Centruroides limpidus limpidus
C;Date: 05-Jan-1996 #sequence_revision 05-Jan-1996 #text_change 09-Jul-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32.1%; Score 110; DB 2; Length 66; 48.8%; Pred. No. 4.2e-05;
                                                                                                                                                                                                                                15; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16 YLCAPLGDNPDCIKIC-QKHGVDY-GYCYAFQCWCEFLKDENV 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14 YECLKLGDNDYCLRECKQQYGKSSGGYCYAFACWCTHLYEQAV 56
                                                                                                                                                                                                                                                                                                                         33 YGCLLLGKNEGCDKECKAKNQGGSYGYCYAFGCWCEGLPE 72
                                                                                                                                                                                                                                                                                        53
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                                                                                                                                                                     Query Match
32.4%; Score 111; DB 2;
Best Local Similarity 52.5%; Pred. No. 4.2e-05;
Matches 21; Conservative 2; Mismatches 15,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6; Mismatches
A, Experimental source: venom gland C, Superfamily: scorpion neurotoxin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Cross-references: UNIPROT: P08900
C; Superfamily: scorpion neurotoxin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     toxin CssII - Mexican scorpion
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Matches 20; Conserv
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C;Accession: JN0670
R;Becerril, B.; Vazquez, A.; García, C.; Corona, M.; Bolivar, F.; Possani, L.D.
R;Becerril, B.; Vazquez, A.; García, C.; Corona, M.; Bolivar, F.; Possani, L.D.
A;Title: Cloning and characterization of cDNAs that code for Na+-channel-blocking toxins
A;Reference number: JN0669; MUID:93292983; PMID:8390386
A;Accession: JN0670
                                                                                                                                                                                                                                                 A;Molecule type: mRNA
A;Residues: 1-87 <BEC>
A;Cross-references: UNIPROT:P45664; GB:L05061; NID:g304568; PIDN:AAA28286.1; PID:g304569
A;Experimental source: venom gland
C;Superfamily: scorpion neurotoxin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Accession: S23079
A;Molecule type: protein
A;Residues: 17-48, 'GY',51-82 <ZAM>
A;Residues: 17-48, 'GY',51-82 <ZAM>
R;Gurrola, G.B.; Moreno-Hagelgieb, G.; Zamudio, F.Z.; Garcia, M.; Soberon, X.; Possani,
FEBS Lett. 347, 59-62, 1994
A;Title: The disulfide bridges of toxin 2 from the scorpion Centruroides noxius Hoffmann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Molecule type: protein
A;Residues: 25-30;31-33; X',35,43-46; XY';61-63; X',65-68; XS' <GUR>
A;Residues: 25-30;31-33; X', 25,43-46; XY';61-63; X', 65-68; XS' <GUR>
R;Martin, B.; Possani, L.D.; Dent, M.A.R.; Maelicke, A.
Toxicon 20, 74, 1982
A;Title: N-terminal sequence of toxin II.9.2.2 from the venom of the Mexican scorpion Ce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A,Title: Cloning and characterization of the cDNAs encoding Na+ channel-specific toxins A,Reference number: Z17202, MUID:96119048, PMID:85886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Na+-channel-blocking toxin 2 precursor [validated] - scorpion (Centruroides noxius)
Alelernate names: neurotoxin 2; sodium channel-blocking toxin 2; toxin II.9.2.2
C; Paterate names: noxius
C; Pater IS-Oct-1982 #sequence_revision 01-Sep-2000 #text_change 09-Jul-2004
C; Patersion: T10893; S33079; S45722; A01755
R; Vazquez, A. Tapia, J.V.; Eliason, W.K.; Martin, B.M.; Lebreton, F.; Delepierre, M.; Toxicon 33, 1161-1170, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Kerwords: toxin
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-87/Product: Na+-channel-blocking toxin (clone cngtIII) #status predicted <MAT>
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A;Residues: 17-46 <MAR>
C;Superfamily: scorption neurotoxin
C;Keywords: neurotoxin; venom
F:17-82/Product: sodium channel-blocking toxin 2 #status experimental <MAT>
F:28-81,32-57,41-62,45-64/Disulfide bonds: #status experimental
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Pred. No. 8.6e-05;
7; Mismatches 14; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 87
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16 YLCAPLGDNPDCIKIC--QKHGVDYGYCYAFQCWCEFLKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31.8%; Score 109; DB 2;
52.5%; Pred. No. 6.9e-05;
iive 2; Mismatches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 46.5%;
Matches 20; Conservative
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16 YLCAPLGDNPDCIKIC-QKHGVDY-GYCYAFQCWCEFLKDENV 56

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us-10-617-978-20.rpr

7

Gaps

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Length 66;

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C;Accession: S23080
R;Zamudio, F.; Saavedra, R.; Martin, B.M.; Gurrola-Briones, G.; Herion, P.; Possani, L.:
Bur. J. Biochem. 204, 281-292, 1992
A;Title: Amino acid sequence and immunological characterization with monoclonal antibod: A;Reference number: S23079; MUID:92155216; PMID:1371253
A;Accession: S23080
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Accession: JN0671
R; Becerril, B.; Vazquez, A.; Garcia, C.; Corona, M.; Bolivar, F.; Possani, L.D.
Gene 128, 165-171, 1993
A;Title: Cloning and characterization of cDNAs that code for Na+-channel-blocking toxin.
A;Reference number: JN0669; MUID:93292983; PMID:8390386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GB:L05062; NID:g304570; PIDN:AAA28287.1; PID:g304571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Na+-channel-blocking toxin (clone cngtIV) precursor - scorpion (Centruroides noxius) C;Species: Centruroides noxius C;Date: 03-Feb-1994 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C,Kejwords: toxin
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-86/Product: Na+-channel-blocking toxin (clone cngtIV) #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Accession: A01751
R;Babin, D.R.; Watt, D.D.; Goos, S.M.; Mlejnek, R.V.
Arch. Biochem. Biophys. 166, 125-134, 1975
A;Title: Amino acid sequence of neurotoxin I from Centruroides sculpturatus Ewing.
A;Reference number: A01751; MUID:75145142; PMID:1122130
                                                                              C;Species: Centruroides noxius
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
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CiSpecies: Centruroides sculpturatus (bark scorpion)
CiDate: 22-Jun-1981 #sequence_revision 22-Jun-1981 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14 YECFKIGDNDYCLRECKARYGKGAGGYCYAFGCWCTQLYEQAV 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16 YLCAPLGDNPDCIKICQ-KHGVDY-GYCYAFQCWCEFLKDENV 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         34 CYKLGENDYCNRECKWKHRGGSYGYCYGFGCYCEGLSD 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match

29.7%; Score 102; DB 2;
Best Local Similarity .46.5%; Pred. No. 0.00031;
Matches 20; Conservative 7; Mismatches 14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29.7%; Score 102; DB 2;
illarity 52.6%; Pred. No. 0.00038;
Conservative 4; Mismatches 12.
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    scorpion (Centruroides noxius)

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A; Residues: 1-86 sBC>
A; Cross-references: UNIPROT: P45665;
A; Experimental source: venom gland
C; Superfamily: scorpion neurotoxin
                                                                                                                                                                                                                                                                                                                                                                                A;Molecule type: protein
A;Residues: 1-66 <22M>
A;Cross-references: UNIPROT:P80076
C;Superfamily: scorpion neurotoxin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: protein
A;Residues: 1-64 SBAS-
A;Cross-references: UNIPROT:P01491
C;Superfamily: scorpion neurotoxin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Keywords: neurotoxin; venom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                  Cjaccession: A31168
R;Martin, B.M.; Carbone, E.; Yatani, A.; Brown, A.M.; Ramirez, A.N.; Gurrola, G.B.; Poss R;Martin, B.M.; Carbone, E.; Yatani, A.; Brown, A.M.; Ramirez, A.N.; Gurrola, G.B.; Poss A;Title: Amino acid sequence and physiological characterization of toxins from the venom A;Reference number: A31188; MUD:89073189; PMID:2849217
A;Accession: A31188
A;Molecule type: protein
A;Residues: 1-66 cMAR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                neurotoxin 4 precursor - scorpion (Centruroides noxius)
Nylternate names: sodium channel-blocking toxin 4; toxin II-10
C;Species Centruroides noxius
C;Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text_change 09-Jul-2004
C;Accession: JN0672; S32399; Ā58106
R;Recerril, B:; Vazquez, A.; Garcia, C.; Corona, M.; Bolivar, F.; Possani, L.D.
A;Title: Cloning and characterization of cDNAs that code for Na+-channel-blocking toxins
A;Reference number: JN0669; MUID:9329983; PMID:8390386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A Accession: JN0672
A, Molecule type: mRNA
A, Molecule type: mRNA
A, Molecule type: mRNA
A, Residues: 1-87 - 48E.
A, Cross-references: UNIPROT: P45662, GB:L05063, NID:g304572; PIDN:AAA28288.1; PID:g304573
A, Experimental source: venom gland; clone cngtV
B, Vazquez, A, B secerril, B. Martin, B.M.; Zamudio, F.; Bolivar, F.; Possani, L.D.
FBBS Lett. 3A0, 43.46, 1993
A, Title: Primary structure determination and cloning of the cDNA encoding toxin 4 of the A, Accession: 832399, MUD:g315818; PMID:8462674
A, Accession: 832399
A, Molecule type: mRNA
A, Molecule type: mRNA
A, Residues: 1-97 - VAZ>
A, Residues: 1-97 - VAZ>
A, Accession: A58106
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C;Keywords: amidated carboxyl end; neurotoxin; venom
F;1-19/Domain: signal sequence #status predicted <SIG>
F;10-85/Product: neurotoxin 4 #status experimental <MAT>
F;31-84,35-60,44-65,48-67/Disulfide bonds: #status predicted
F;85/Modified site: amidated carboxyl end (Asn) (amide in mature form from following gly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;;
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                                                                                                                                                                      neurotoxin 1 - scorpion (Centruroides limpidus)
C;Species: Centruroides limpidus tecomanus
C;Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_change 09-Jul-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14; Indels
   30 YECLKLGDNDYCLRECKQQYGKGAGGYCYAFACWCTHLYEQAI 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14 YECFKLGDNDYCLRECROOYGKGAGGYCYAFGCWCTHLYEQAV 56
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31.2%; Score 107; DB 2;
48.8%; Pred. No. 8.9e-05;
tive 6; Mismatches 14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Cross-references: UNIPROT: P18926
C; Superfamily: scorpion neurotoxin
C; Keywords: neurotoxin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best_Local Similarity 48.89
Matches 21; Conservative
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Gaps

5

Length 86

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29.4%; Score 101; DB 1; Length 64;
F;11-63,15-40,24-45,28-47/Disulfide bonds: #status predicted
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RESULT 9

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Gaps

<u>ب</u>

Length

23 53

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depressant insect toxin LqqIT2 - scorpion (Leiurus quinquestriatus)
C;Species: Leiurus quinquestriatus
C;Bace: 06-Jul-1990 #sequence_revision 06-Jul-1990 #text_change 09-Jul-2004
C;Accession: B34123; S08268; B38526
R;Zlotkin, B.; Fowler, E.; Eitan, M.; Moyer, M.; Adams, M.E.
Toxicon 28, 170, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A, Title: On the chemistry and action of the depressant insect toxins
                                                                                                                                                                                                                                                                                       7 YPLDSSDN-TYLCAPLGDNP--DCIKICQKHGVDYGYCYAFQCWCEFLKD
                            C;Superfamily: scorpion neurotoxin
C;Keywords: neurotoxin; venom
F;12-64,16-41,27-46,29-48/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Keywords: neurotoxin; venom F;10-60,14-35,21-42,25-44/Disulfide bonds: #status predicted
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Pred. No. 0.0034;
4; Mismatches 11;
                                                                                                                                   Query Match 27.8%; Score 95.5; DB 1; Best Local Similarity 44.0%; Pred. No. 0.0015; Matches 22; Conservative 3; Mismatches 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18 NEGCNKECKSYGGSYGYCWTWGLACWCEGLPDE 50
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A;Reaidues: 1-61 <ZLO2>
A;Cross-references: CAS:130300-67-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Molecule type: protein
A;Residues: 1-61 <ZLO1>
A;Cross-references: UNIPROT:P19855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C. Superfamily: scorpion neurotoxin
  Cross-references: UNIPROT: P01492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26.8%;
48.5%;
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nes 16; Conserv
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                                                                                                                                                                                                             toxin II-14 - scorption (Centruroides noxius)

C.Species: Centruroides noxius

C.Species: Centruroides noxius

C.Species: 19-Mar-1997 #text_change 09-Jul-2004

C.Accession: $32789

C.Accession: $32789

A.Martin, B.M.; Svendsen, I.; Rode, G.S.; Erickson, B.W.

B.Jochem. J. 229, 739-750, 1985

A.Title: Scorption toxins from Centruroides noxius and Tityus serrulatus. Primary structu

A.Accession: $32789

A.Accession: $32789

A.Molecule type: protein

A.Molecule type: protein

A.Mosidues: 1-64 <POS>

A.Kesidues: 1-64 <POS>

A.Kesidues: 1-64 <POS>

A.Cross-references: UNIPROT: P15223

C.Superfamily: scorpion neurotoxides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Centruroides Sculpturatus (bark scorpion)
C;Species: Centruroides Sculpturatus (bark scorpion)
C;Date: 22-Jun-1981 #sequence_revision 22-Jun-1981 #text_change 23-Aug-1996
C;Date: 22-Jun-1981 #sequence_revision 22-Jun-1981 #text_change 23-Aug-1996
C;Accession: Aut. b.D.; Goos, S.M.; Mlejnek, R.V.
Arch. Biochem. Biophys. 164, 694-706, 1974
A;Title: Amino acid sequences of neurotoxic protein variants from the venom of Centruroi A;Title: Amino acid sequences of neurotoxic protein variants from the venom of Centruroi A;Molecule type: protein
A;Molecule type: protein
A;Molecule type: protein
C;Rejwords: neurotoxin; venom
C;Keywords: neurotoxin; venom
F;12-64,16-41,27-46,29-48/b]sulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 neurotoxin 1 - bark scorpion (tentative sequence)
C;Species: Centruroides sculpturatus (bark scorpion)
C;Species: Centruroides sculpturatus (bark scorpion)
C;Accession: A01752
R;Babin, D.R.; Watt, D.D.; Goos, S.M.; Mlejnek, R.V.
Axch. Blochem. Blophys. 164, 694-706, 1974
A;Title: Amino acid sequences of neurotoxic protein variants from the venom of Centruroi A;Reference number: A90058; MuID:751631395; PMID:4460885
A;Moclealion: A01752
A;Moclecule type: protein
A;Residues: 1.65 < BAB>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7 YPLDSSDNTYLCAPLGDNPDCIKICQ-KH-GVDYGYCYAFQCWCEFLKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 29.2%; Score 100; DB 1; Length 66; Best Local Similarity 47.5%; Pred. No. 0.0005; Matches 19; Conservative 3; Mismatches 16; Indels
                               12; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16 YLCAPLGDNP--DCIKICQKHGVDYGYCYAFQCWCEFLKD 53
                                                                                                               15 CYKLGENDFCNRECKWKHIGGSYGYCYGFGCYCEGLPD 52
                                                                                  18 CAPLGDNPDCIKICQ-KH-GVDYGYCYAFQCWCEFLKD
  52.6%; Pred. No. 0.00038;
ive 4; Mismatches 12
                               20; Conservative
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Best Local Similarity
Matches 20; Conserv
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8, 2005, 15:14:10 ; Search time 162 Seconds July Run on:

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343 1 ADVPGNYPLDSSDNTYLCAP......GYCYAFQCWCEFLKDENVKV 58 Perfect score: Sequence:

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

2105692 Total number of hits satisfying chosen parameters: 2105692 seqs, 386760381 residues Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100%

Listing first 45 summaries

geneseqp2003as:\* geneseqp2003bs:\* geneseqp2004s:\* A Geneseq 16Dec04:4 geneseqp1980s:\* geneseqp1990s:\* geneseqp2000s:\* geneseqp2001s:\* geneseqp2002s:\* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

	Description	Abr55370 Amino aci	Abr55371 Amino aci			Aab20075 Scorpion		Aab20076 Scorpion	Aab20078 Scorpion	Aab12941 Neurotran	Abr55383 Amino aci	Abr55381 Amino aci		Abr55384 Amino aci	Abr55378 Amino aci	Abr55377 Amino aci	Abr55385 Amino aci	Abr55387 Amino aci	Abr55386 Amino aci	Aay30314 Amino aci	Abr55380 Amino aci	Abr55388 Amino aci	Abr55389 Amino aci	Abr55391 Amino aci	Abr55390 Amino aci	Abr55382 Amino aci
SOPPERATES	ΙD	ABR55370	ABR55371	ABR55369	ABR55368	AAB20075	AAB20077	AAB20076	AAB20078	AAB12941	ABR55383	ABR55381	ABR55379	ABR55384	ABR55378	ABR55377	ABR55385	ABR55387	ABR55386	AAY30314	ABR55380	ABR55388	ABR55389	ABR55391	ABR55390	ABR55382
	DB	9	9	9	9	4	4	4	4	ᠬ	9	9	9	9	9	9	9	9	ø	~	9	9	ø	ø	9	9
	Query Match Length	58	58	58	58	89	89	8	68	69	65	65	87	99	99	87	84	99	99	67	65	99	86	64	86	99
de	Query	9.99	0.99	65.3	64.4	48.0	47.1	44.5	44.5	35.0	34.8	33.1	32.4	32.1	31.8	31.8	31.5	31.2	31.2	31.2	31.0	29.7	29.7	29.4	29.4	29.5
	Score	228.5	226.5	224	221	164.5	161.5	152.5	152.5	120	119.5	113.5	111	110	109	109	108	107	107	107	106.5	102	102	101	101	100
	Result No.	п	7	m	4	S	9	7	80	6	10	11	12			15		17		19	20	21	22	23	24	25

Aay30316 Amino aci Abp52178 Scorpion Abr55376 A polypep Ad123896 Buthoid a Aay30315 Amino aci Abp52176 Scorpion Aay92727 Scorpion Aay92727 Scorpion Aay44885 LqhrT2 to Abr55374 Amino aci Abr55373 Amino aci Abr55373 Amino aci Abr55373 Amino aci Abr55373 Amino aci Abr55373 Amino aci Abr55373 Amino aci Ad123895 Buthoid a	Aaw18795 Scorpion Aaw18795 Insect-se Aaw21993 Insect se Aab20069 Scorpion Aab20072 Scorpion Ad123897 Buthoid s
AAY30316 ABF52178 ABR52376 ADK23896 AAY30315 ABF52177 AAY4585 AAY4585 ABR5373 ABR55373 ABR55373 ABR55373 ABR55373 ABR55373 ADK23895	AAW06339 AAW18795 AAW21993 AAB20069 AAB20072 ADL23897
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9 9 9 9 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	88 88 87 86 85
22228888888888888888888888888888888888	4 4 4 4 4 0 11 5 5 5 4 5 5

## ALIGNMENTS

RESULT 1

Scorpion, birtoxin, venom, blood brain barrier, ion channel, kinin receptor, insecticide, pesticide, dortoxin. ABR55370 standard; peptide; 58 AA. Amino acid sequence of dortoxin. 04-OCT-2002; 2002WO-US031861. (first entry) Parabuthus transvaalicus. WO2003028666-A2. 29-JUL-2003 10-APR-2003. ABR55370; ABR55370 

04-OCT-2001; 2001US-0327602P. 28-JUN-2002; 2002US-0393070P.

(REGC ) UNIV CALIFORNIA.

Hammock BD, Inceoglu B; WPI; 2003-441071/41. Novel scorpion birtoxin family polypeptide derived from venom of Parabuthus transvaalicus, useful for producing a composition for treating diseases or conditions associated with ion channel function or kinin activity.

Claim 6; Page 74; 104pp; English.

The specification describes a scorpion birtoxin family polypeptide, derived from the venom of Parabuthus transvalicus, separated from its natural milieu. The polypeptide is a modulator of the permeability of the blood brain barrier. The polypeptide also has an an ion channel binding activity of a birtoxin family polypeptide and kinin receptor activity. The pertition the permeability of the blood brain barrier. It is also useful for modulating the permeability of the blood brain which are useful for treating diseases and conditions associated with the ion channel function or kinin activity. Antibodies generated using the polypeptide are useful for detecting the presence of scorpion venom toxin and in altering birtoxin family polypeptide-ion channel binding or kinin

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ADVPGNYPLDSSDNTYLCAPLGDNPDCIKICQKHGVDYGYCYAFQCWC-EFLKDEN
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                                                                                                                  ABR55369;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          activity.
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                                                               RESULT 3
ABR55369
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The specification describes a scorpion birtoxin family polypeptide, derived from the venom of Parabuthus transvalicus, separated from its natural milieu. The polypeptide is a modulator of the permeability of the blood brain barrier. The polypeptide also has an an ion channel binding activity of a birtoxin family polypeptide and kinin receptor activity. The peptide is useful for modulating the permeability of the blood brain barrier. It is also useful for modulating the permeability of the blood brain barrier. It is also useful for producing pharmaceutical compositions which are useful for treating diseases and conditions associated with the polypeptide are useful for detecting the presence of scorpion venom toxin and in altering birtoxin family polypeptide-ion channel binding or kinin and in altering companishing these antibodies is useful as an insecticide or pesticide. The present sequence represents bestoxin of Parabuthus transvaalicus, a polypeptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel scorpion birtoxin family polypeptide derived from venom of Parabuthus transvaalicus, useful for producing a composition for treating diseases or conditions associated with ion channel function or kinin
activity. Antivenom comprising these antibodies is useful as an insecticide or pesticide. The present sequence represents dortoxin of Parabuthus transvaalicus, a polypeptide of the invention
                                                                                                     Gaps
                                                                                                                                           1 ADVPGNYPLDSSDNTYLCAPLGDNPDCIKICQKHGVDYGYCYAFQCWC-EFLKDEN 55
                                                                                                      ;
                                                                             58;
                                                                                                                                                                                                                                                                                                                       Scorpion; birtoxin; venom; blood brain barrier; ion channel; kinin receptor; insecticide; pesticide; bestoxin.
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                                                                             Length
                                                                                                   11; Indels
                                                                         Score 228.5; DB 6;
Pred. No. 3.1e-19;
7; Mismatches 11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 6; Page 75; 104pp; English.
                                                                                                                                                                                                                                                                                               Amino acid sequence of bestoxin.
                                                                                                                                                                                                                   ABR55371 standard; peptide; 58
                                                                         66.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                      04-OCT-2002; 2002WO-US031861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-OCT-2001; 2001US-0327602P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-JUN-2002; 2002US-0393070P
                                                                                                                                                                                                                                                                      (first entry)
                                                                                                   37; Conservative
                                                                                                                                                                                                                                                                                                                                                             Parabuthus transvaalicus
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                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                      WO2003028666-A2
                                                  Sequence 58 AA;
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The specification describes a scorpion birtoxin family polypeptide,
derived from the venom of Parabuthus transvaalicus, separated from its
catural milieu. The polypeptide is a modulator of the permeability of the
blood brain barrier. The polypeptide also has an an ion channel binding
cativity of a birtoxin family polypeptide and kinin receptor activity.

The peptide is useful for modulating the permeability of the blood brain
cativity of a seful for producing pharmaceutical compositions
which are useful for treating diseases and conditions associated with the
con channel function or kinin activity. Antibodies generated using the
polypeptide are useful for detecting the presence of scorpion venom toxin
can in altering birtoxin family polypeptide-ion channel binding or kinin
cativity. Antivenom comprising these antibodies is useful as an
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ADVPGNYPLDKDGNTYTCLELGENKDCQKVCKLHGVQYGYCYAFSCWCKEYLDDKD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scorpion; birtoxin; venom; blood brain barrier; ion channel;
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Pred. No. 1e-18;
9; Mismatches 11; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          kinin receptor; insecticide; pesticide; ikitoxin.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Amino acid sequence of ikitoxin.
                                                                                                                                                                                                                                                                                         ABR55369 standard; peptide; 58
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Best Local Similarity
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29-JUL-2003

WO2003028666-A2.

10-APR-2003

Hammock BD,

activity

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The present sequence is that of a scorpion (Buthotus judaicus) venom protein showing 29.7% identity to an insecticidal toxin of Orthochirus scorbiculosus. The sequence was predicted from a cDNA clone (see AAA89397) isolated from the scorpion telson cDNA ilbrary. The invention provides isolated nucleic acid sequences (see AAA89386-400) encoding corpion toxins (see AAA89386-70) and acid sequences (see AAA89386-400) encoding invention also relates to the construction of a chimeric gene encoding all or part of the sodium channel modifier, in sense or antisense orientation, where expression of the chimeric gene results in production of altered levels of the sodium channel modifier in a transformed host cell. Sodium channel modifiers can be used to treat neurological problems involving abnormal functioning of excitory amino acid synapses, e.g. cepilepsy, Huntington's disease and neuronal death following stroke. Genetically engineered recombinant baculoviruses which express procein toxins capable of incapacitating an insect host can be used as biological in which sodium channel agonists of the invention are expressed for improved insect tolerance. (Updated on 11-SEP-2003 to standardise OS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New isolated polynucleotide encoding a scorpion toxin for treating epilepsy, degenerative disorders such as Huntington's disease, and neuronal death following stroke, and for creating plants that are insect-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 DVPGNYPLDSSDNTYLCAPLGDNPDCIKICQKHGVDYGYCYAFQCWCEFLKDENVKV 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scorpion; venom; toxin; sodium channel agonist; anticonvulsant; nootropic; cerebroprotective; insecticide.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               48.0%; Score 164.5; DB 4
45.6%; Pred. No. 1.7e-11;
tive 9; Mismatches 21
                                                                                       22. .89
/label= Mature_protein
                                                1. .21
/label= Sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 10; Page 56-57; 60pp; English.
                        Location/Qualifiers
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                                                                                                                                                                                                                                                         21-JUN-2000; 2000WO-US017048.
                                                                                                                                                                                                                                                                                                     99US-0140410P.
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(first entry)
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nes 26; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                 Herrmann R, Lee J,
                                                                                                                                                                                                                                                                                                                                                                                                                                             2001-050111/06
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                                                                                                                                                           WO200078957-A2
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23-APR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tolerant,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                         Protein
                                              Peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The specification describes a scorpion birtoxin family polypeptide, derived from the venom of Parabuthus transvaalicus, separated from its natural milieu. The polypeptide is a modulator of the permeability of the blood brain barrier. The polypeptide also has an an ion channel binding activity of a birtoxin family polypeptide and kinin receptor activity. The peptide is useful for modulating the permeability of the blood brain barrier. It is also useful for producing pharmaceutical compositions which are useful for treating diseases and conditions associated with the ion channel function or kinin activity. Antibodies generated using the polypeptide are useful for detecting the presence of scorpion venom toxin and in altering birtoxin family polypeptide-ion channel binding or kinin activity. Antivenom comparising these antibodies is useful as an insecticide or pesticide. The present sequence represents birtoxin of Parabuthus transvaalicus, a polypeptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel scorpion birtoxin family polypeptide derived from venom of Parabuthus transvaalicus, useful for producing a composition for treating diseases or conditions associated with ion channel function or kinin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gape
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                                                                                                          Scorpion; birtoxin; venom; blood brain barrier; ion channel; kinin receptor; insecticide; pesticide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64.4%; Score 221; DB 6; Length 58; 63.0%; Pred. No. 2.3e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 6; Page 71; 104pp; English.
                                                               Amino acid sequence of birtoxin.
                                                                                                                                                                                                                                                                                                                        04-OCT-2002; 2002WO-US031861
                                                                                                                                                                                                                                                                                                                                                                    04-OCT-2001; 2001US-0327602P
28-JUN-2002; 2002US-0393070P
                   (first entry)
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Matches 34; Conservative
                                                                                                                                                                                Parabuthus transvaalicus.
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Sequence 58 AA;

11-SEP-2003 23-APR-2001

AAB20075;

RESULT 5

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Gaps

DB 4; Length 89;

Peptide Protein

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The present sequence is that of a scorpion (Buthotus judaicus) venom protein showing 29.6% identity to an insecticidal toxin of Orthochirus scorbiculosus. The sequence was predicted from a cDNA clone (See AAA89398) isolated from the scorpion telson cDNA library. The invention provides isolated nucleic acid sequences (see AAA89386-400) encoding conjoin toxins (see AAA89386-408) that are sodium channel modifiers. The invention also relates to the construction of a chimeric gene encoding all or part of the sodium channel modifier, in sense or antisense or related levels of the sodium channel modifier, in sense or antisense or all or part of the sodium channel modifier in a transformed host cell. Sodium channel modifiers can be used to treat neurological problems involving abnormal functioning of excitory amino acid synapses, e.g. capilepsy, Huntington's disease and neuronal death following stroke centically engineered recombinant baculoviruses which express procein toxins capable of incapacitating an insect host can be used as biological in which sodium channel agonists of the invention are expressed for in which sodium channel agonists of the invention are expressed for in macricyced insect tolerance. (Updated on 11-SEP-2003 to standardise OS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New isolated polynucleotide encoding a scorpion toxin for treating epilepsy, degenerative disorders such as Huntington's disease, and neuronal death following stroke, and for creating plants that are insect-
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Scorpion; venom; toxin; sodium channel agonist; anticonvulsant; nootropic; cerebroprotective; insecticide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
44.5%; Score 152.5; DB 4;
Best Local Similarity 43.6%; Pred. No. 4.3e-10;
Matches 24; Conservative 11; Mismatches 19;
                                                                                                                                                   1. .21
/label= Sig_peptide
22. .89
/label= Mature_protein
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                                                                                                                           Location/Qualifiers
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(first entry)
                                                                          Hottentotta judaica.
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N-PSDB; AAA89398.
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23-APR-2001
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                                                                                                                                                Peptide
                                                                                                                                                                                                      Protein
                                                                                                                                 Key
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xaaxxaxa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence is that of a scorpion (Buthotus judaicus) venom protein showing 29.6% identity to an insecticidal toxin of Orthochirus scrobiculosus. The sequence was predicted from a cDNA clone (see AAAB9399) isolated from the scorpion telson cDNA ibrary. The invention provides isolated nucleic acid sequences (see AAAB9386-400) encoding scorpion toxins (see AAB2064-78) that are soddium channel modifiers. The invention also relates to the construction of a chimeric gene encoding all or part of the sodium channel modifier, in sense or antisense or invention also relates to the construction of a chimeric gene results in production of altered levels of the sodium channel modifier in a transformed host cell. Sodium channel modifiers can be used to treat neurological problems involving abnormal functioning of excitory amino acid synapses, e.g. cepilepsy, Huntington's disease and neuronal death following stroke. Genetically engineered recombinant baculoviruses which express protein toxins capable of incapacitating an insect host can be used as biological in which sodium channel agonists of the invention are expressed for improved insect tolerance. (Updated on 11-SEP-2003 to standardise OS
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neuronal death following stroke, and for creating plants that are insect-
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New isolated polynucleotide encoding a scorpion toxin for treating
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                                                                                                    1. .21
/label= Sig_peptide
22. .89
                                                                             Location/Qualifiers
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hes 25; Conservative
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                            Hottentotta judaica.
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23-APR-2001
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RESULT 7 AAB20076

Query Match

Best Loca Matches

Length 89; Indels

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04-OCT-2002; 2002WO-US031861
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28-JUN-2002; 2002US-0393070P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence is that of a scorpion (Buthotus judaicus) venome protein showing 29.6% identity to an insecticidal toxin of Orthochirus scrobiculosus. The sequence was predicted from a cDNA clone (see AAAAB9180) isolated from the scorpion telson cDNA library. The invention CC provides isolated from the scorpion telson cDNA library. The invention provides isolated mucleic acid sequences (see AAAB9386-400) encoding corpion toxins (see AAB20064-78) that are sodium channel modifiers. The invention also relates to the construction of a chimeric gene encoding all or part of the sodium channel modifier, in sense or antisense contentation, where expression of the chimeric gene results in production of altered levels of the sodium channel modifier in a transformed host conclusion capable of the sodium channel modifier in a transformed host involving abnormal functioning of excitory amino acid synapses, e.g. cycliepsy, Huntington's disease and neuronal death following stroke. Genetically empineered recombinant baculoviruses which express protein toxins capable of incapacitating an insect host can be used as biological in which sodium channel agonists of the invention are expressed for improved insect tolerance. (Updated on 11-SBP-2003 to standardise OS field)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 PGNYPLDSSDNTYLCAPLGDNPDCIKICQKHGVDYGYCYAFQCWCEFLKDENVKV
                         Scorpion; venom; toxin; sodium channel agonist; anticonvulsant; nootropic; cerebroprotective; insecticide.
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Scorpion sodium channel agonist (insecticidal toxin).
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1. Similarity 43.6%; Pred. No. 4.3e-10;
24; Conservative 11; Mismatches 19;
                                                                                                                            22. .89
/label= Mature_protein
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                                                                                                     l. .21
/label= Sig_peptide
                                                                                        Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 10; Page 58; 60pp; English.
                                                                                                                                                                                                                                                                        (DUPO ) DU PONT DE NEMOURS & CO
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                                                                                                                                                                                                                                                                                                    Lee J, Wong JF;
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                                                              Hottentotta judaica.
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Matches 24; Conserv
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                                                                                                                                                                    WO200078957-A2
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                                                                                                                                                                                              28-DEC-2000
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                                                                                                                                                                                                                                                                                                                                                                                                           tolerant,
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                                                                                                    Peptide
                                                                                                                              Protein
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AAB12941
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                                                                     Neurotransmission inhibitor; bark scorpion; nerve conduction; nootropic; neuroprotective; acute encephalopathy; Alzheimer's disease;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6 YPLASNGCKFGCSGLGENNPTCNHVCEKKAGSDYGYCYWWTCYCEHVAEGTV 57
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35.0%; Score 120; DB 3; Length 69; 44.2%; Pred. No. 2.1e-06; tive 10; Mismatches 17; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A peptide having nerve conduction inhibiting activity.
Neurotransmission inhibitory peptide #1
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                                                                                                                                                                                                            Centruroides sculpturatus.
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Best Local Similarity 44.2*
Matches 23, Conservative
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                                                                                                                                              Huntington's chorea.
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RESULT 12
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                                                                                                      Novel scorpion birtoxin family polypeptide derived from venom of Parabuthus transvaalicus, useful for producing a composition for treating diseases or conditions associated with ion channel function or kinin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 34.8%; Score 119.5; DB 6; Length 65; Best Local Similarity 50.0%; Pred. No. 2.3e-06; Matches 21; Conservative 6; Mismatches 14; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16 YLCAPLGDNPDCIKIC-OKHGVDYGYCYAFQCWCEFLKDENV 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14 YECLKLGDNDYCLRECRQQYGKSGGYCYAFACWCTHLYEQAV 55
                                                                                                                                                                                                                                              Disclosure; Page 100; 104pp; English.
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2002US-0393070P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 65 AA;
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28-JUN-2002;
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Hammock BD,
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ABR55381
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Disclosure; Page 100; 104pp; English.

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                             derived from the venom of Parabuthus transvalicus, separated from its natural milieu. The polypeptide is a modulator of the permeability of the blood brain barrier. The polypeptide also has an ion channel binding activity of a birtoxin family polypeptide and kinin receptor activity. The peptide is useful for modulating the permeability of the blood brain barrier. It is also useful for producing pharmaceutical compositions which are useful for treating diseases and conditions associated with the ion channel function or kinin activity. Antibodies generated using the polypeptide are useful for detecting the presence of scorpion venom toxin and in altering birtoxin family polypeptide-ion channel binding or kinin activity. Antivenom comprising these antibodies is useful as an insecticide or pesticide. The present sequence appears in the
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specification describes a scorpion birtoxin family polypeptide,
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28-JUN-2002; 2002US-0393070P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 65 AA;
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14; Indels

Mismatches

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21; Conservative

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   toxin
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   scorpion venom
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polypeptide are useful for detecting the presence of scorpion ve and in altering birtoxin family polypeptide-ion channel binding activity. Antivanom comprising these antibodies is useful as an insecticide or pesticide. The present sequence appears in the
                                                                                                                            2;
                                                                                                    Length 87;
                                                                                                                          Indels
                                                                                                                                                     23
                                                                                                                                                                  33 YGCLLLGKNEGCDKECKAKNQGGSYGYCYAFGCWCEGLPE 72
                                                                                                                                                   16 YLCAPLGDNPDCIKIC - QKHGVDYGYCYAFQCWCEFLKD
                                                                                                   Score 111; DB 6;
Pred. No. 3.2e-05;
                                                                                                                            2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 100-101; 104pp; English.
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                                                                                                                                                                                                                                         ABR55384 standard; peptide; 66
                                                                                                                                                                                                                                                                                                                                                                                 Centruroides suffusus suffusus.
                                                                                                32.4%;
52.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-0327602P.
2002US-0393070P.
                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Inceoglu B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-441071/41.
                                                                                                   Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 66 AA;
                                                                         Sequence 87 AA;
                                                   specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-JUN-2002;
                                                                                                                         21;
                                                                                                                                                                                                                                                                                           29-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                     10-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hammock BD,
                                                                                                                                                                                                                                                                  ABR55384;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           activity
                                                                                                                          Matches
                                                                                                                                                                                                                  RESULT 13
                                                                                                                                                                                                                                ABR55384
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Length 66;

Score 110; DB 6; Pred. No. 3.1e-05;

32.1%; 48.8%;

Query Match Best Local Similarity

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                                                                                                                                                                                                                                                                                                                                                                                         Amino acid sequence of a polypeptide of Centruroides limpidus limpidus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel scorpion birtoxin family polypeptide derived from venom of Parabuthus transvaalicus, useful for producing a composition for treadiseases or conditions associated with ion channel function or kinin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scorpion; birtoxin; blood brain barrier; Parabuthus transvaalicus; ion channel; kinin receptor; insecticide; pesticide; venom.
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7
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26
                                                  26
                                                     14 YECLKLGDNDYCLRECKOOYGKSSGGYCYAFACWCTHLYEQAV
16 YLCAPLGDNPDCIKIC-OKHGVDY-GYCYAFQCWCEFLKDENV
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14;
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4; Mismatches
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                                                                                                                                                                                                         ABR55378 standard; peptide; 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Centruroides limpidus limpidus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-OCT-2002; 2002WO-US031861,
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28-JUN-2002; 2002US-0393070P.
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50.0%;
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es 20; Conservative
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ABR55377
ID ABR55
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                                                                                                                                                RESULT 14
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The specification describes a scorpion birtoxin family polypeptide, derived from the venom of Parabuthus transvaalicus, separated from its natural milieu. The polypeptide is a modulator of the permeability of the blood brain barrier. The polypeptide also has an an ion channel binding activity of a birtoxin family polypeptide and kinin receptor activity. The peptide is useful for modulating the permeability of the blood brain barrier. It is also useful for producing pharmaceutical compositions which are useful for treating diseases and conditions associated with the ion channel function or kinin activity. Antibodies generated using the polypeptide are useful for detecting the presence of scorpion venom toxin and in altering birtoxin family polypeptide-ion channel binding or kinin activity. Antivenom comprising these antibodies is useful as an insecticide or pesticide. The present sequence appears in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel scorpion birtoxin family polypeptide derived from venom of Parabuthus transvaalicus, useful for producing a composition for treating diseases or conditions associated with ion channel function or kinin
                                                                                                                                      Scorpion; birtoxin; blood brain barrier; Parabuthus transvaalicus; ion channel; kinin receptor; insecticide; pesticide; venom.
                                                                                                  Amino acid sequence of a polypeptide of Centruroides noxius.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 98; 104pp; English.
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28-JUN-2002; 2002US-0393070P.
                                                                                                                                                                                                                                                                                                                        04-OCT-2002; 2002WO-US031861
                                                      29-JUL-2003 (first entry)
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                    ABR55377;
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16 YLCAPLGDNPDCIKIC--QKHGVDYGYCYAFQCWCEFLKD 53 33 YGCFWLGKNEGCDKECKAKNQGGSYGYCYAFGCWCEGLPE 72 ð 유

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Gaps

5.

Search completed: July 8, 2005, 15:29:57 Job time : 164 secs

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US-09-699-632-35
US-09-599-632-35
Sequence 35, Application US/0959632
Sequence 35, Application US/0959632
GENERAL INO. 676802
GENERAL INO. 676802
GENERAL INORMATION:
APPLICANT: Herrman, Rafael
APPLICANT: Howney James F.
APPLICANT: Lee, Jian-Ming
TITLE OF INVENTION: SCORPION TOXINS
FILE REFERENCE: BB1375 US NA
CURRENT APPLICATION NUMBER: US/09/599,632
CURRENT FILING DATE: 2000-06-22
PRIOR APPLICATION NUMBER: 60/140,410
PRIOR APPLICATION NUMBER: 60/140,410
FRIOR FILING DATE: 1999-06-22
NUMBER OF SEQ ID NOS: 38
SOFTWARE: Microsoft Office 97
SEQ ID NO 35
TYPE: PRT
RESULT 1
US-09-599-632-31
SEQ ID NO 31
LENGTH: 89
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                                                                        July 8, 2005, 15:27:17; Search time 42 Seconds (without alignments) 103.087 Million cell updates/sec
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                                                                                                                    US-10-617-978-20
343
1 ADVPGNYPLDSSDNTYLCAP......GYCYAFQCWCEFLKDENVKV
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(/ggn2 6/ptodata1/liaa/5A_COMB.pep:*

(/ggn2 6/ptodata1/liaa/5B_COMB.pep:*

(/ggn2 6/ptodata1/liaa/6A_COMB.pep:*

(/ggn2 6/ptodata1/liaa/6B_COMB.pep:*

(/ggn2 6/ptodata1/liaa/BGTOMB.pep:*

(/ggn2 6/ptodata1/liaa/PCTUS_COMB.pep:*

(/ggn2 6/ptodata1/liaa/PCTUS_COMB.pep:*
        GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-09-599-632-33
US-09-053-021-2
US-09-053-021-4
US-09-053-021-4
US-09-053-021-4
US-08-93-021-9
US-08-93-33-021-8
US-08-472-4
US-08-93-33-14-25
US-08-472-053-3
US-08-472-053-3
US-08-472-053-3
US-08-472-053-46
US-08-972-383A-14
US-08-970-264A-27
US-08-970-264A-27
US-08-970-264A-27
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5-09-599-632-12
5-08-451-472-6
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US-08-435-040-2
                                                                                                                                                                                                  513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                   OM protein - protein search, using sw model
                                                                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
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Maximum DB seq length: 200000000
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Match Length
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US-09-020-216-2
US-09-599-632-27
US-08-838-2198-9
US-09-233-35A-9
US-09-233-35A-9
US-09-20-25A-9
US-09-90-25A-9
US-09-90-632-14
US-09-90-632-14
US-09-403-343B-25
US-09-403-343B-25
US-08-472-053-1
US-08-472-053-5
US-09-480-251-6
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US-09-480-251-6
US-09-599-632-26
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Pred. No. 1.4e-12;
9; Mismatches 21
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JS-08-435-040-3
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Patent No. 6768002
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Herrman, Rafael
APPLICANT: Wong, James F.
APPLICANT: Lee, Jian-Ming
TITLE OF INVENTION: SCORPION TITLE OF INVENTION: SCORPION A
CURRENT APPLICATION NUMBER: US/09/599,632
CURRENT PLING DATE: 2000-06-22
PRIOR APPLICATION NUMBER: 60/140,410
PRIOR FILING DATE: 1999-06-22
PRIOR FILING DATE: 1999-06-22
NUMBER OF SEQ ID NOS: 38
SOFTWARE: Microsoft Office 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 45.6%;
Matches 26; Conservative
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CRGANISM: Hottentotta judiaca
US-09-599-632-31
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US-09-053-021-2

Sequence 2, Application US/09053021

Patent No. 62707085

GENERAL INFORMATION:

APPLICANT: SELISKO, Barbara
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Best Local Similarity
Matches 21, Conserva
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-053-021-2
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US-09-053-021-1
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                                                                                                                                             4 PGNYPLDSSDNTYLCAPLGDNPDCIKICQKHGVDYGYCYAFQCWCEFLKDENVKV 58
                                                                                                                                                                  26 PGNYPISIYGQSYGCTS-SDHDYCADICKVHGVNYGYCWVTSCWCEYLKBEDINI 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 PGNYPLDSSDNTYLCAPLGDNPDCIKICQKHGVDYGYCYAFQCWCEFLKDENVKV 58
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                                                             Length 89;
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                                                                                                     IndelB
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                                                          Query Match 47.1%; Score 161.5; DB 4; Best Local Similarity 45.5%; Pred. No. 3.2e-12; Matches 25; Conservative 11; Mismatches 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 44.5%; Score 152.5; DB 4; Best Local Similarity 43.6%; Pred. No. 3.9e-11; Matches 24; Conservative 11; Mismatches 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
44.5%; Score 152.5; DB 4
Best Local Similarity 43.6%; Pred. No. 3.9e-11.
Matches 24; Conservative 11; Mismatches 19
                                                                                                                                                                                                                                                                                                                             APPLICANT: Herrman, Rafael
APPLICANT: Wong, James F.
APPLICANT: Lee, Jian-Ming
TITLE OF INVENTION: SCORPION TOXINS
FILE REFERENCE: BB1375 US NA
CURRENT APPLICATION NUMBER: US/09/599,632
CURRENT FILING DATE: 2000-06-22
PRIOR FILING DATE: 1999-06-22
NUMBER OF SEQ ID NOS: 38
SOFTWARE: Microsoft Office 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Herrman, Rafael
APPLICANT: Wong, James F.
APPLICANT: Lee, Jian-Ming
TITLE OF INVENTION: SCORPION TOXINS
FILE REFERENCE: BB1375 US NA
CURRENT APPLICATION NUMBER: US/09/599, 632
CURRENT APPLICATION NUMBER: 60/140,410
PRIOR FILING DATE: 1999-06-22
NUMBER: OF SEQ ID NOS: 38
                                                                                                                                                                                                                                                                           Sequence 33, Application US/09599632
Patent No. 6768002
GENERAL INFORMATION:
APPLICANT: Herrman, Rafael
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 37, Application US/09599632
Patent No. 6768002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Hottentotta judiaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Hottentotta judiaca
ORGANISM: Hottentotta judiaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Microsoft Office 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Herrman
      , ORGANISM: DOI
US-09-599-632-35
                                                                                                                                                                                                                                           RESULT 3
US-09-599-632-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER SOFTWARE: MICSEQ ID NO 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-599-632-37
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LENGTH: 89
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APPLICANT: GARCIA-RODRIGUEZ, Consuelo
APPLICANT: GARCIA-RODRIGUEZ, Consuelo
APPLICANT: BECERRIL-LUJAN, Baltazand
APPLICANT: BECERRIL-LUJAN, Baltazand
APPLICANT: BECERRIL-LUJAN, Baltazand
APPLICANT: BECERRIL-LUJAN, Baltazand
TITLE OF INVENTION: Primary Sequence and cDNA of
PATHE OF INVENTION: Insecticidally Effective Toxins from Scorpions of the
TITLE OF INVENTION: Genus Centruroides
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
ADDRESSEE: Dunner, L.L.P.
STREET: 1300 I Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ~
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Centruroides limpidus limpidus Karsch
DEVELOPMENTAL STAGE: Adult
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/053,021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17 CYKLGENKFCNRECRAKHRGGDYGYCYGFGCYCEGLAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18 CAPLGDNPDCIKICQ-KH-GVDYGYCYAFQCWCEFLKD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 05 60/017,007
FILING DATE: 30-ARR-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/848,261
FILING DATE: 29-ARR-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Garrett, Arthur S.
REGISTRATION NUMBER: 20,338
REFRENCE/DOCKET NUMBER: 0689
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)408-4000
TELEFAX: (202)408-4400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELBEAK: (202)408-70.2 INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS: FRNGTH: 67 aming acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
ORIGINAL SOURCE:
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14 YNCLILGENKNCDMECKAKNQGGSYGYCYKLACWCEGLPE 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 amino acid
GY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE:
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APPLICANT: GARCIA-RODRIGHEZ, Consuelo
APPLICANT: GARCIA-RODRIGHEZ, Consuelo
APPLICANT: ANUDIO-ZUNIGA, Baltazar
APPLICANT: BECERRIL-LUJAN, Baltazar
APPLICANT: POSSANI-POSTAY, Lourival D.
TITLE OF INVENTION: Primary Sequence and cDNA of
FATTLE OF INVENTION: Insecticidally Effective Toxins from Scorpions of the
TITLE OF INVENTION: Genus Centruroides
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: Plungan, Henderson, Farabow, Garrett &
STREET: 1300 I Street, N.W.
STREET: Dunner, L.L.P.
CITY: Washington
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              three-dimensional model and electrostatic surface potentials in comparison with other toxin variants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 68;
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AUTHORS: Delepierre, Muriel
AUTHORS: Possani, Lourival D.
TITLE: An insect-specific toxin from Centruroides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DATE: 1996
RELEVANT RESIDUES IN SEQ ID NO: 1: FROM 1 TO 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/053,021
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REGISTRATION NUMBER: 20,338
REFERENCE/DOCKET NUMBER: 06899.0001-01000
TELEPHONE: (202)408-4000
TELEPHONE: (202)408-4400
INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS:
LENGTH: 68 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29.4%; Score 101; DB 3; 45.0%; Pred. No. 4.6e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
ORIGINAL SOURCE:
ORGANISM: Centruroides noxius Hoffman
DEVELOPMENTAL STAGE: Adult
TISSUE TYPE: venom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIPICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/017,007
RILING DATE: 30-ARR-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/848,261
FILING DATE: 29-ARR-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE TYPE: venom
PUBLICATION INFORMATION:
AUTHORS: Selisko, Barbara
AUTHORS: Garcia, Consuelo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 45.01
Matches 18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 20005
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APPLICANT: ZANUDIO-ZUNIGA, Formado
APPLICANT: ZANUDIO-ZUNIGA, Paltazar
APPLICANT: BECERRIL-LUJAN, Baltazar
APPLICANT: POSSANI-POSTAY, Lourival D.
TITLE OF INVENTION: Primary Sequence and cDNA of
PATOR D. 6270785
TITLE OF INVENTION: Insecticidally Effective Toxins from Scorpions of the
TITLE OF INVENTION: Genus Centruroides
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
ADDRESSEE: Dunner, L.L.P.
STREET: 1300 I Street, N.W.
CITY: Washington
STATE: DC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ~
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16 YLCAPLGDNPDCIKIC--QKHGVDYGYCYAFQCWCEFLKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/053,021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 30-APR-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/848,261
FILING DATE: 29-APR-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
US-053-021-9
US-053-021-9
Sequence 9, Application US/09053021
Patent No. 6270785
GENERAL INFORMATION:
APPLICANT: SELISKO, Barbara
APPLICANT: GARCIA-RODRIGUEZ, COnsuelo
Sequence 4, Application US/09053021
Patent No. 6270785
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Garrett, Arthur S.
REGISTRATION NUMBER: 20,338
REFERENCE/DOCKET NUMBER: 06
TELECOMMUNICATION INFORMATION:
                                                                           SELISKO, Barbara
GARCIA-RODRIGUEZ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (202)408-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 45.0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (202)408-4400
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear
MOLECULE TYPE: protein
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Gaps

; 5

16; Indels

4; Mismatches

4;

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US-08-682-485A-25

| Sequence 25, Application US/08682485A |
| Patent No. 5763568 |
| GENERAL INFORMATION |
| APPLICANT: HOWDEN, MERLIN E.H. |
| APPLICANT: TYLER, MARGARET I |
| APPLICANT: VONARX, EDWARD J |
| TITLE OF INVENTION: Insecticidal Toxins Derived From |
| TITLE OF INVENTION: Funnel Web (Atrax or Hadronyche Spiders) |
| NUMBER OF SEQUENCES: 2 |
| CORRESPONDENCE ADDRESS: Ambrew |
| ADDRESSEE: Zeneca, Inc. |
| ADDRESSEE: Zeneca, Inc. |
                                                                                                                                                                                                                                                                                                                  7 YPLDSSDNTYLCAPLGDNPDCIKICQKHGVDYGYC--YAFQCWCEFLKDENV 56
                                                                                                                                                                                                                                                                                                                                                                  3 YPKQKDGCKYSCTI -- NHKFCNSVCKSNGGDYGYCWFWGLACWCEGLPDNKM 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 26.8%; Score 92; DB 1; Length 61; Best Local Similarity 48.5%; Pred. No. 0.0005; Matches 16; Conservative 4; Mismatches 11; Indels
                                                                                                                                                                   Length 64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Leiurus quinquestriatus quinquestriatus
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURENT APPLICATION DATA:
APPLICATION NUMBER: US/08/682,485A
                                                                                                                                                               Query Match 27.4%; Score 94; DB 4; Best Local Similarity 34.6%; Pred. No. 0.0003; Matches 18; Conservative 7; Mismatches 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/US/US/US/ASSA
FILING DATE:
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/682,485
FILING DATE: 17-UULY-1996
APPLICATION NUMBER: US/08/256,933
FILING DATE: 29-JAN-1993
APPLICATION NUMBER: MO 93/15108
FILING DATE: 29-JAN-1993
APPLICATION NUMBER: AU PLO722
FILING DATE: 31-JAN-1992
ATTORNEY/AGENT INFORMATION:
NAME: Shaw, Melissa A.
REGISTATION NUMBER: 38,301
REFERENCE/DOCKET NUMBER: 38,301
TELECOMMUNICATION INFORMATION:
       ; TYPE: PRT
; ORGANISM: Orthochirus scrobiculosus
US-09-599-632-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E: Zeneca, Inc.
1200 South 47th Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: 510-231-1542
TELEFAX: 510-231-1112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 61 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Richmond
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ANTI-SENSE: NO
ORIGINAL SOURCE
ORGANISM: LE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-682-485A-25
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                                                                                                                                                                                                                                                                                                                              ò
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APPLICANT: ZAMUDIO-ZUNIGA, Fernando
APPLICANT: BEGERRIL-LUJAN, Baltazar
APPLICANT: BEGERRIL-LUJAN, Baltazar
APPLICANT: POSSANI-POSTAY, Lourival D.
TITLE OF INVENTION: Primary Sequence and cDNA of
Patent No. 6270785
TITLE OF INVENTION: Insecticidally Effective Toxins from Scorpions of the
TITLE OF INVENTION: Genus Centruroides
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
ADDRESSEE: Dunner, L.L.P.
STREET: 1300 I Street, N.W.
CITY: Washington
STATE: DC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16 YLCAPLGDNPDCIKIC -- OKHGVDYGYCYAFQCWCEFLKD 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27 YNCLILGENKNCDMECKAKNQGGSYGYCYKLACWCEGLPE 66
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REGISTRATION NUMBER: 20,338
REFERENCE/DOCKET NUMBER: 06899.0001-01000
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)408-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-599-632-25

US-09-599-632-25

Sequence 25, Application US/09599632

Sequence 25, Application US/09599632

GENERAL INFORMATION:

APPLICANT: Herrman, Rafael

APPLICANT: Herrman, SCORPION TOXINS

TITLE OF INVENTION: SCORPION TOXINS

CURRENT FILING DATE: 1999-06-22

CURRENT FILING DATE: 1999-06-22

NUMBER OF SEQ ID NOS: 38

SEQ ID NO 25

LENGTH: 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION UNDERER: US 60/017,007
FILING DATE: 30-APR-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/848,261
FILING DATE: 29-APR-1997
ATTOCNEY/AGENT INFORMATION:
NAME: Garrett, Arthur S:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (202)408-4400
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 81 amino acids
TYPE: amino acids
TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; MOLECULE TYPE: protein US-09-053-021-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
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Gaps

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Sequence 3, Application US/08472053
; Sequence 3, Application US/08472053
; Patent No. 6689356
; GENERAL INFORMATION:
; APPLICANT: ZLOTKIN, ELIAHU
; APPLICANT: MAEDA, SUSUMU
; APPLICANT: MAEDA, SUSUMU
; APPLICANT: MAEDA, SUSUMU
; APPLICANT: POWLER, ELIZABETH
; APPLICANT: POWLER, ELIZABETH
; APPLICANT: POWLER, ELIZABETH
; TITLE OF INVENTION: TRECOMBINANT BACULOVIRUSES PRODUCING
; TITLE OF INVENTION: INSECT TOXINS
; FILE REFERRENCE: UCOSB.1FWCP2
; CURRENT APPLICATION NUMBER: 08/029417
; PRIOR PILING DATE: 1994-04-15
; PRIOR PILING DATE: 1994-04-15
; PRIOR PILING DATE: 1990-12-19
; PRIOR PILING DATE: 1980-12-19
; NUMBER OF SEQ ID NOS: 49
; NUMBER OF SEQ ID NOS: 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 61;
                                                                 COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: TBM PC compatible
CORRENT MEDIUM TYPE: Ploppy disk
COMPUTER: TBM PC compatible
CORRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/933,314
FILING DATE:
CLASSIFICATION DATA:
APPLICATION NUMBER: US/08/82,485
FILING DATE: 17-JULY-1996
APPLICATION NUMBER: US/08/256,933
FILING DATE: 29-JAN-1993
APPLICATION NUMBER: WO 93/15108
FILING DATE: 31-JAN-1993
APPLICATION NUMBER: WO 93/15108
FILING DATE: 31-JAN-1993
APPLICATION NUMBER: 38,301
REGISTRATION NUMBER: 38,301
REGISTRATION NUMBER: 38,301
REGISTRATION NUMBER: 38,301
REGISTRATION NUMBER: 38,301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Leiurus quinquestriatus quinquestriatus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 26.8%; Score 92; DB 2; Best Local Similarity 48.5%; Pred. No. 0.0005; Matches 16; Conservative 4; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24 NPDCIKICQKHGVDYGYCYAF--QCWCEFLKDE 54
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
TELEPHONE: 510-231-1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 61 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 510-231-1112
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein uvbornerTCAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acid
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ORIGINAL SOURCE
                                                   94804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HYPOTHETICAL:
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Patent No. 5559182
GENERAL INFORMATION:
APPLICANT: ATKINSON, RONALD K
APPLICANT: TYLER, MARCARET I
APPLICANT: VONARX, EDWARD J
TITLE OF INVENTION: Insecticidal Toxins Derived From
TITLE OF INVENTION: Funnel Web (Atrax or Hadronyche Spiders)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 92; DB 1; Length 61;
Pred. No. 0.0005;
4; Mismatches 11; Indels
                                                                                                                                                                                                                                                                                                                                                                              AUDKESSEE: NIXON & VANGEINYE PC
STREET: 8th Floor, 1100 No. 5770192th Glebe Road
CITY: Arlington
STATE: Vigginia
COUNTRY: USA
ZIP: 22201-4714
COMPUTER READABLE FORM:
MEDIUW TYEE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OMPUTER: FROME: PC-DOS/MS-DOS
SOFTWARE: PATCHIN PC-DOS/MS-DOS
SOFTWARE: PATCHIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/451,472
FILING DATE:
CLASSIFICATION NUMBER: US/08/451,472
FILING DATE: 24-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: MATY J WHISEN: 32,955
REGISTRATION NUMBER: 32,955
REGISTRATION NUMBER: 32,955
REGISTRATION NUMBER: 31,955
REGISTRATION NUMBER: 117-187
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFRAK: (703) 816 4100
                                                                                                                                                                                                                                                APPLICANT:
TITLE OF INVENTION: BIOLOGICAL CONTROL AGENTS
NUMBER OF SEQUENCES: 73
CORRESPONDENCE ADDRESS:
ADDRESSEE: Nixon & Vanderhye PC
STREET: 8th Ploor, 1100 No. 5770192th Glebe Road
                              18 NEGCNKECKSYGGSYGYCWTWGLACWCEGLPDE 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24 NPDCIKICOKHGVDYGYCYAF--QCWCEFLKDE 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18 NEGCNKECKSYGGSYGYCWTWGLACWCEGLPDE 50
24 NPDCIKICQKHGVDYGYCYAF -- QCWCEFLKDE 54
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STREET: 1200 South 47th Street
CITY: Richmond
                                                                                                                                                                            Sequence 4, Application US/08451472
Patent No. 5770192
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 26.8%;
Best Local Similarity 48.5%;
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 61 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: 200797 NIXN UR INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Zeneca, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: ALGANU
APPLICANT: ALGANU
APPLICANT: MAEDA, SUSUMU
APPLICANT: MACUTCHEN, BILLY F.
APPLICANT: MACUTCHEN, BILLY F.
APPLICANT: HAWNOCK, BRUCK D.
APPLICANT: HAWNOCK, BRUCK D.
APPLICANT: HELAGALE, RAMA
TITLE OF INVENTION: RECOMBINANT BACULOVIRUSES PRODUCING
TITLE OF INVENTION: RECOMBINANT
TITLE OF INVENTION: INSECT TOXINS
FILE REPERENCE: UCOSB.1FMCP2
CURRENT APPLICATION NUMBER: US/08/472,053
CURRENT FILING DATE: 1994-04-15
PRIOR FILING DATE: 1994-04-15
PRIOR PLILING DATE: 1990-12-19
PRIOR APPLICATION NUMBER: 07/629603
PRIOR PLILING DATE: 1990-12-19
PRIOR PLILING DATE: 1980-12-19
NUMBER OF SEQ ID NOS: 49
NUMBER OF SEQ ID NOS: 49
SOFTWARE: FASTESE FOR WINDOWS Version 4.0
SEQ ID NO 2
LENGTH.
                                                                                                                                                            Query Match 26.8%; Score 92; DB 4; Length 61; Best Local Similarity 48.5%; Pred. No. 0.0005; Matches 16; Conservative 4; Mismatches 11; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 25.7%; Score 88; DB 4; Length 61; Best Local Similarity 45.5%; Pred. No. 0.0015; Matches 15; Conservative 5; Mismatches 11; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 46, Application US/08472053

Patent No. 6693356

GENERAL INFORMATION:
APPLICANT: ZLOTKIN, ELIAHU
APPLICANT: MACUTCHEN, BILLY F.
APPLICANT: MCUTCHEN, BILLY F.
APPLICANT: POWLER, ELIZABETH
APPLICANT: FOWLER, TROWBINANT BACULOVIRUSES PRODUCING
TITLE OF INVENTION: INSECT TOXINS
FILE REFERENCE: UCOS8.1FWCP2
SEQ ID NO 3
LENGTH: 61
TYPE: PRT
ORGANISM: Leiurus quinquestriatus quinquestriatus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18 NEGCDKECKAYGGSYGYCWTWGLACWCEGLPDD 50
                                                                                                                                                                                                                                                                                                     18 NEGCNXECKSYGGSYGYCWTWGLACWCEGLPDE 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24 NPDCIKICQKHGVDYGYCYAF--QCWCEFLKDE 54
                                                                                                                                                                                                                                                                       24 NPDCIKICOKHGVDYGYCYAF -- QCWCEFLKDE 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT
; ORGANISM: Leiurus quinquestriatus hebraeus
US-08-472-053-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/08/472,053
CURRENT FILING DATE: 2002-11-13
PRIOR APPLICATION NUMBER: 08/229417
PRIOR FILING DATE: 1994-04-15
PRIOR APPLICATION NUMBER: 07/629603
                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
US-08-472-053-2
'Sequence 2, Application US/08472053
'Patent No. 6689356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
US-08-472-053-46
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## PRIOR FILING DATE: 1990-12-19
## PRIOR PILING DATE: 1990-12-19
## PRIOR PILING DATE: 1998-12-19
## PRIOR FILING DATE: 1988-12-19
## NUMBER OF SEQ ID NOS: 49
## SOFTWARE: FastSEQ for Windows Version 4.0
## SEQ ID NO 46
## LENGTH: 62
## LENGTH: 63
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Sequence Sequence

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US-10-721-793-146
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US-10-721-793-107
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US-10-721-793-17
US-10-721-793-14
US-10-721-793-14
US-10-721-793-16
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Sequence 3, Application US/10264480

Publication No. US20030113892A1

GENERAL INFORMATION:

APPLICANT: Hammock, Bruce D.

APPLICANT: Hammock, Bruce D.

TITLE OF INVENTION: FROM THE VENOM OF P. TRANSVALICUS AND METHODS OF USE

TITLE OF INVENTION: FROM THE VENOM OF P. TRANSVALICUS AND METHODS OF USE

FILE REPERENCE: UCAL256

CURRENT PILING DATE: 2002-10-4

FRIOR APPLICATION NUMBER: 60/393,070

PRIOR FILING DATE: 2002-06-28

PRIOR FILING DATE: 2001-09-4

PRIOR FILING DATE: 2001-09-4

NUMBER OF SEQ ID NOS: 30

SOFTWARE: FastSEQ for Windows Version 4.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ch 66.6%; Score 228.5; DB 14; Length 58; 1 Similarity 66.1%; Pred. No. 8.5e-20; 37; Conservative 7; Mismatches 11; Indels 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT ORGANISM: Parabuthus transvaalicus
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Best Local Similarity
Matches 37; Conserv
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LENGTH: 58
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RESULT
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Sequence 1, Appli
Sequence 16, Appl
Sequence 108, App
Sequence 106, App
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Sequence 154, App
Sequence 148, App
Sequence 160, App
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Sequence 4, Appli
Sequence 2, Appli
                                                                                                                                       July 8, 2005, 15:33:13 ; Search time 163 Seconds (without alignments) 137.467 Million cell updates/sec
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343
1 ADVPGNYPLDSSDNTYLCAP.....GYCYAFQCWCFFLKDENVKV
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| cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US108_PUBCOMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US11_NEW_PUB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US10_PUBCOMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US10_PUBCOMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US10_PUBCOMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US10_PUBCOMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US10_PUBCOMB.ppp:*
| cgn2_6/ptodata/2/pubpaa/US10_PUBCOMB.ppp:*
                 GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-10-264-480-4

US-10-264-480-1

US-10-264-480-1

US-10-264-480-16

US-10-721-793-108

US-10-721-793-156

US-10-721-793-154

US-10-721-793-154

US-10-721-793-154

US-10-721-793-168

US-10-721-793-168
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 0.5
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Maximum DB seq length: 200000000
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Perfect score:
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Publication No. US20030113892A1

GENERAL INFORMATION:
APPLICANT: Hammock, Bruce D.
APPLICANT: Homeoglu, Bora
TITLE OF INVENTION: FROM THE VENOM OF P. TRANSVALICUS AND METHODS OF USE
FILE REFERENCE: UCALIS6
CURRENT APPLICATION NUMBER: US/10/264,480
CURRENT FILING DATE: 2002-10-04
PRIOR APPLICATION NUMBER: 60/393,070
PRIOR APPLICATION NUMBER: 60/393,070
PRIOR APPLICATION NUMBER: 60/393,070
PRIOR PILING DATE: 2001-10-04
NUMBER OF SEQ ID NOS: 30
SOFTWARE: PASTESQ for Windows Version 4.0

LENGTH: 58
              Sequence 4, Application US/10264480

Publication No. US20030113892A1

GENERAL INFORMATION:
APPLICANT: Hammock, Bruce D.
APPLICANT: Hammock, Bruce D.
APPLICANT: Inceeglu, Bora
TITLE OF INVENTION: ISOLATED POLYPEPTIDES AND COMPOSITIONS
TITLE OF INVENTION: ISOLATED POLYPEPTIDES AND COMPOSITIONS
TITLE OF INVENTION: USBER: US10/264,480
CURRENT APPLICATION NUMBER: 08/10/264,480
CURRENT PILING DATE: 2002-10-04
PRIOR APPLICATION NUMBER: 60/393,070
PRIOR APPLICATION NUMBER: 60/393,070
PRIOR APPLICATION NUMBER: 60/327,602
PRIOR APPLICATION NUMBER: 60/327,602
PRIOR APPLICATION NUMBER: 60/327,602
SPROFFWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 58
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Pred. No. 1.5e-19;
6; Mismatches 12; Indels
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Publication No. US20030113892A1
GENERAL INFORMATION:
APPLICANT: Hammoor, Bruce D.
APPLICANT: Inceeglu, Bora
TITLE OF INVENTION: ISOLATED POLYPEPTIDES AND COMPOSITIONS
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Pred. No. 2.9e-19;
9; Mismatches 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT ORGANISM: Parabuthus transvaalicus
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Best Local Similarity 66.1%;
Matches 37; Conservative
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Best Local Similarity 63.0%;
Matches 34; Conservative
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US-10-264-480-1
US-10-264-480-4
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APPLICANT: Corona Villegas, Miguel
APPLICANT: Corona Villegas, Ma Consuelo
APPLICANT: Garcia Rodriguez, Ma Consuelo
APPLICANT: Valdez Cruz, Norma Adriana
APPLICANT: Gurrola Briones, Georgina
APPLICANT: Becerril Lujan, Baltazar
APPLICANT: Possani Postay, Lourival Domingos
TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
CURRENT APPLICATION NUMBER: US/10/721,793
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| Sequence 116, Application US/10264480
| Publication No. US20030113892A1
| GENERAL INFORMATION:
| APPLICANT: Hammoock, Bruce D. |
| APPLICANT: Hammoock, Bruce D. |
| TITLE OF INVENTION: ISOLATED POLYPEPTIDES AND COMPOSITIONS
| TITLE OF INVENTION: PROM THE VENOM OF P. TRANSVAALICUS AND METHODS OF USE |
| FILE REFERENCE: UCAL256 |
| FILE REFERENCE: UCAL256 |
| FILE REFERENCE: UCAL256 |
| FILE REPERENCE: UCAL2
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TITLE OF INVENTION: FROM THE VENOM OF P. TRANSVAALICUS AND METHODS OF USE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 221; DB 14; Length 58;
Pred. No. 6.7e-19;
8; Mismatches 12; Indels
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                                    FILE REFERENCE: UCAL256
CURRENT APPLICATION NUMBER: US/10/264,480
CURRENT FILING DATE: 2002-10-04
PRIOR APPLICATION NUMBER: 60/393,070
PRIOR FILING DATE: 2002-06-28
PRIOR FILING DATE: 2001-04
NUMBER OF SEQ ID NOS: 30
SOFTWARE: FastSEQ for Windows Version 4.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Parabuthus transvaalicus US-10-264-480-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ouery Match 64.4%;
Best Local Similarity 63.0%;
Matches 34; Conservative
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Gaps

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APPLICANT: Corona Villegas, Miguel
APPLICANT: Corona Villegas, Ma Consuelo
APPLICANT: Garcia Rodriguez, Ma Consuelo
APPLICANT: Garcia Rodriguez, Ma Consuelo
APPLICANT: Gurrola Briones, Garciana
APPLICANT: Becerril Lujan, Baltazar
APPLICANT: Recembinant Immunogens for the Generation of Antivenoms to the
TITLE OF INVENTION: Recombinant Immunogens of the Genus Centruroides
FILE REPERENCE: 2099.007001
CURRENT APPLICATION NUMBER: US/10/721,793
CURRENT FILING DATE: 2003-11-26
PRIOR APPLICATION NUMBER: US 60/430,067
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APPLICANT: Corona Villegas, Ma Consuelo
APPLICANT: Garcia Redriguez, Ma Consuelo
APPLICANT: Valdez Cruz, Norma Adriana
APPLICANT: Gurrola Briones, Georgina
APPLICANT: Becerril Lujan, Baltazar
APPLICANT: Becerril Lujan, Baltazar
APPLICANT: Posani Postay, Lourival Domingos
TITLE OF INVENTION: Recombinant Immunogens for the Generation of Price Reference: 2099.0070001
CURRENT PELLICATION NUMBER: US/10/721,793
CURRENT FILING DATE: 2003-11-26
PRICE APPLICATION NUMBER: US 60/430,067
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                                                                                                                                                                                                                                   Score 118; DB 17;
Pred. No. 1.7e-06;
3; Mismatches 14;
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Pred. No. 2.3e-06;
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                                                                                                                            ; TYPE: PRT
; ORGANISM: Centruroides sculpturatus
US-10-721-793-156
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                NUMBER OF SEQ ID NOS: 294
SOFTWARE: Patentin version 3.1
SEQ ID NO 156
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52.5%;
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Best Local Similarity 52.5%;
Matches 21; Conservative
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NUMBER OF SEQ ID NOS: 294
SOFTWARE: PatentIn version 3.1
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SOFTWARE: Patentin version 3.1
SEQ ID NO 148
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APPLICANT: Corona Villegas, Miguel
APPLICANT: Garcia Rodriguez, Ma Consuelo
APPLICANT: Valdez Cruz, Norma Adriana
APPLICANT: Gurrola Briones, Georgina
APPLICANT: Becerril Lujan, Baltazar
APPLICANT: Becerril Lujan, Baltazar
APPLICANT: Becerril Lujan, Baltazar
APPLICANT: Becerril Lujan, Baltazar
APPLICANT: Bossani Postay, Lourival Domingos
TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
FILE REFERENCE: 2099.0070001
CURRENT PILING DATE: 2003-11-26
PRIOR APPLICATION NUMBER: US 60/430,067
PRIOR FILING DATE: 2002-12-02
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34.7%; Score 119; DB 17;
Best Local Similarity 52.5%; Pred. No. 1.7e-06;
Matches 21; Conservative 3; Mismatches 14;
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Pred. No. 1.3e-06;
3; Mismatches 14;
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APPLICANT: Valdez Cruz, Norma Adriana
APPLICANT: Uardez Cruz, Norma Adriana
APPLICANT: Garcil Briones, Georgina
APPLICANT: Becerril Lujan, Baltazar
APPLICANT: Possani Postay, Lourival Domingos
TITLE OF INVENTION: Venom of Scorpions of the Ger
FILE REFERENCE: 2099.0770001
CURRENT APPLICATION NUMBER: US/10/721,793
                                            60/430,067
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PRIOR FILING DATE: 2002-12-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 106, Application US/10721793
Publication No. US20050065331A1
GENERAL INFORMATION:
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Publication No. US20050065331A1
GENERAL INFORMATION:
PRIOR APPLICATION NUMBER: US 60/436; PRIOR FILIMO DATE: 2002-12-02; NUMBER OF SEQ ID NOS: 294; SOFTWARE: Patentin version 3.1; SEQ ID NO 108
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                                                                                                                                                                                               TYPE: PRT
ORGANISM: Centruroides elegans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Centruroides elegans US-10-721-793-106
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52.5%;
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Best Local Similarity 52.5;
Matches 21; Conservative
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RESULT 13

US-10-721-793-176

Sublication No. US20050065331A1

APPLICANT: Corona Villegas, Miguel

APPLICANT: Garcia Rodriguez, Ma Consuelo

APPLICANT: Gurrola Briones, Georgina

APPLICANT: Becerril Lujan, Baltazar

APPLICANT: Becerril Lujan, Baltazar

APPLICANT: Possani Postay, Lourival Domingos

TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the

TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides

TITLE APPLICATION NUMBER: US/10/721,793

CURRENT APPLICATION NUMBER: US 60/430,667

PRIOR PILING DATE: 2002-11-26

PRIOR APPLICATION NUMBER: US 60/430,667

NUMBER OF SEQ ID NOS: 294

NUMBER OF SEQ ID NOS: 294

SOFTWARE: PatentIn version 3.1
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APPLICANT: Garcia Rodriguez, Ma Consuelo
APPLICANT: Valdez Cruz, Norma Adriana
APPLICANT: University Seriones Georgina
APPLICANT: Gurrola Briones Georgina
APPLICANT: Becerril Lujan, Baltazar
APPLICANT: Possani Postay, Lourival Domingos
TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the
TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides
FILE REFERENCE: 2099.007001
CURRENT APPLICATION NUMBER: US/10/721,793
CURRENT APPLICATION NUMBER: US 60/430,067
PRIOR APPLICATION NUMBER: US 60/430,067
NUMBER OF SEQ ID NOS: 294
SOFTWARR: Patentin version 3.1
SEQ ID NO 146
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                                                      Length 66;
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11 Similarity 52.5%; Pred. No. 2.3e-06;
21; Conservative 3; Mismatches 14;
                                                   Score 117; DB 17;
Pred. No. 2.3e-06;
3; Mismatches 14;
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GENERAL INFORMATION:
APPLICANT: Corona Villegas, Miguel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Centruroides sculpturatus
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                                                      Query Match
Best Local Similarity 52.5%;
Matches 21; Conservative
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JS-10-721-793-164
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LENGTH: 66
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US-10-721-793-164

US-10-721-793-164

Sequence 164, Application US/10721793

Sublication No. US20050065331A1

Sublication Normal Miguel

APPLICANT: Corona villegas, Miguel

APPLICANT: Garcia Rodriguez, MacConsuelo

APPLICANT: Garcia Rodriguez, Norma Adriana

APPLICANT: Becerril Lujan, Baltazar

APPLICANT: Becerril Lujan, Baltazar

APPLICANT: Dessani Postay, Lourival Domingos

TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the

TITLE OF INVENTION: Venom of Socrpions of the Genus Centruroides

TILE OF INVENTION: Venom of Socrpions of the Genus Centruroides

FILE REFERENCE: 2099-10070001

CURRENT FILING DATE: 2003-11-26

PRIOR PILING DATE: 2002-12-02

NUMBER OF SEQ ID NOS: 294

SEQ ID NO 164

LINGTH: 66

MANNER OF SEQ ID NOS: 294

SEQ ID NO 164

LINGTH: 66

MANNER OF SEQ ID NOS: 294

SEQ ID NO 164

LINGTH: 66
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Sequence 160, Application US/10721793

Publication No. U220050065331A1

GENERAL INFORMATION:

APPLICANT: Corona Villegas, Miguel

APPLICANT: Garcia Redriguez, Ma Consuelo

APPLICANT: Garcia Redriguez, Ma Consuelo

APPLICANT: Valdac Cruz. Norma Adriana

APPLICANT: Becerril Lujan, Baltazar

APPLICANT: Becerril Lujan, Baltazar

APPLICANT: Possani Postay, Lourival Domingos

TITLE OF INVENTION: Recombinant Immunogens for the Generation of Antivenoms to the

TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides

FILE REFERENCE: 2099.0070001

CURRENT FILING DATE: 2003-11-26

PRIOR FILING DATE: 2003-11-26

PRIOR APPLICATION NUMBER: US 60/430,067

MINDERS OF DATE: 2003-11-20
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                                                                                                                                                Score 117; DB 17;
Pred. No. 2.2e-06;
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Pred. No. 2.3e-06;
                                                                                                                                                                                                    3; Mismatches
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; LENGTH: 65
; TYPE: PRT
; ORGANISM: Centruroides sculpturatus
US-10-721-793-148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Centruroides sculpturatus US-10-721-793-160
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ORGANISM: Centruroides sculpturatus
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SOFTWARE: Patentin version 3.1
SEQ ID NO 160
LENGTH: 66
                                                                                                                                             Query Match
Best Local Similarity 52.5%;
Matches 21; Conservative
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al Similarity 52.5%;
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Sequence 158, Application US/10721793

Sequence 158, Application US/10721793

Fublication No. US20050065331A1

GENERAL INFORMATION:

APPLICANT: Corona Villegas, Ma Consuelo

APPLICANT: Garcia Rodriguez, Ma Consuelo

APPLICANT: Usacia Rodriguez, Ma Consuelo

APPLICANT: Usacia Rodriguez, Ma Consuelo

APPLICANT: Becerril Lujan, Baltazar

APPLICANT: Becerril Lujan, Baltazar

APPLICANT: Rossani Postay, Lourival Domingos

TITLE OF INVENTION: Recombinant Immunogens for the Genus Centruroides

TITLE OF INVENTION: Venom of Scorpions of the Genus Centruroides

TITLE OF INVENTION WHERE: US/10/721,793

CURRENT APPLICATION NUMBER: US 60/430,067

PRIOR PILING DATE: 2002-12-02

NUMBER OF SEQ ID NOS: 294.

SOFTWARE: PatentIn version 3.1

SEQ ID NO 158

LUNGTH: 87

LUNGTH: 87

LUNGTH: 87
                                      Gaps
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Best Local Similarity 52.5%; Pred. No. 3e-06; Matches 21; Conservative 3; Mismatches 14; Indels
                                                                                           16 YLCAPLGDNPDCIKIC--OKHGVDYGYCYAFQCWCEFLKD 53
                                                                                                                                 33 YGCLKLGENEGCDKECKAKNQGGSYGYCYAFACWCEGLPE 72
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Search completed: July 8, 2005, 15:46:13 Job time : 164 secs

33 YGCLKLGENEGCDKECKAKNQGGSYGYCYAFACWCEGLPE 72

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